

Groove Agent
Demo Version Quick Guide
by Sven Bornemark

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Welcome!

In early 2002, a member of our Swedish VST forum suggested that someone should create a modern day drum machine VST instrument. Just like in the old days, when drum machines offered exotic musical styles like Rumba and Cha-Cha, this baby would be able to play a huge number of styles. And with today's 24 bit audio technology, velocity layers, real ambience recordings and an easy to use control panel, what could go wrong?

Okay then, a year later it's time for Groove Agent, a modern day drum machine. An active one that houses both sounds and a huge number of musical styles. A drum machine with a few extra surprises that adds more music to your songs.

Here's how the advertising department would phrase it:

- "I can't program drums".
- "I don't have the time to program drums".
- "Inspire me!".

The above words should be uttered by some depressed musician, and then, in a strike of lightning, Groove Agent would come flying from the skies, accompanied by a voice announcing this slogan:

"Create a professional drum track in the same 3 minutes it takes to play your song!".

End of commercial. I hate commercials.



So why not skip the boring parts of life and concentrate on the interesting bits! I personally consider songwriting to be the finest craft of all, and Groove Agent is designed to help anyone who needs drums in their music; instant drums to keep the creative flow.



Computer tools can't replace real humans, no more in music programs than in other software. We've done our best in maintaining the human touch in Groove Agent by asking real musicians to contribute with their very best grooves. And when they thought the job was done, then came the hard bits; adding half tempo feel and sidestick versions of all 25 levels of complexity for each style! The results often surprised the musicians too, and the collected effort of all that musical activity resides somewhere there in those thousands of bars of drumming.

Please use Groove Agent to create sweet music! Music is good for your soul, and hopefully this musical tool will assist and inspire you to reach higher levels.

Sven Bornemark
/Producer

How do I use Groove Agent?

Groove Agent is a VST instrument. You use it together with a host application, a sequencer program. If your sequencer supports VST instruments, then you can use Groove Agent. Here's how to get started:

1. Prepare a track and load Groove Agent.
2. Select a style using the top slider in Groove Agent. Wait while it loads its sound data.
3. Click the Run button and Groove Agent starts playing. Move the Complexity slider to hear variations in the style.
4. Choose another style and hear what it sounds like when you change the individual drum sounds, click the fill button, mute or unmute the percussion instruments, try the half tempo feel or add a syncopé (accent). Have you found the ambience knob yet?

Now it's time to let Groove Agent act as a real drummer in your music!

What is Groove Agent?

Technically speaking, Groove Agent uses thousands of custom designed MIDI patterns created by Swedish top musicians. These patterns trigger samples especially recorded for this instrument. That's basically it!



The Timeline slider allows you to choose a musical style and its associated drum kit. Some of the kits are acoustic, others are electronic. The Complexity slider provides you with increasing degrees of advanced play. For each level there's an associated fill, half tempo feel pattern and sidestick version. On top of that, there's an Edit section where you can tweak the sounds and even change your instruments.

We're especially proud of the fine musicianship behind every single level of the styles available. This piece of software was produced by musicians for musicians!

Installing Groove Agent demo version (PC version)

Unzip all the files in this archive into your VstPlugins folder. If your host application asks for the location of the Groove Agent Demo files, locate that folder, select it and press OK.

Installing Groove Agent demo version (Mac OS 9 version)

Unstuff the file and put the unstuffed folder "Groove Agent Demo OS 9" into your VstPlugins folder.

Installing Groove Agent demo version (Mac OS X version)

Unstuff the file and put the unstuffed folder "Groove Agent Demo OS X" into your VST folder. This is located in Macintosh HD/Library/Audio/Plug-Ins/VST/.

Limitations in this demo version

This demo version of Groove Agent only has two limitations:

1. Only 2 styles available (out of a total of 54).
2. A few cymbal samples (velocity layers) have been removed to keep down file size.

Setting up Groove Agent as a VST instrument in your host application

This section describes how to set up Groove Agent with Cubase SX as your host application. However, the same procedure applies to most host applications, and you should consult your host's documentation if you need further help.

Make sure the host program has been correctly installed and set up to work with your MIDI and audio hardware (e.g. MIDI keyboard and a sound card).

To set up Groove Agent:

1. Open the VST Instruments window.
2. Click the “No Instruments” label and select Groove Agent on the pop-up menu.
3. Wait for a few seconds while Groove Agent loads its default style samples. Open the Groove Agent window by clicking the Edit button in the slot for Groove Agent.
4. In the VST host application, select Groove Agent as the output for a MIDI track.

Latency and VST instruments

Generally speaking, all VST instruments require a low latency soundcard. While Groove Agent can be played directly on screen with your mouse, some users may find it more useful to control this instrument from a MIDI keyboard. When controlling Groove Agent remotely like this, an audio card with an ASIO driver produces best results.

First test

Let's make sure Groove Agent is properly set up and ready to play:

1. Load Groove Agent as a VST instrument. Make sure Groove Agent is selected as the output for a MIDI track and that the MIDI channel chosen is any other than channel 10. If required, make sure your MIDI controller is routed to this track.
2. Open the Groove Agent panel. Move the Style slider to a style of your choice. Be prepared to wait for a second or two while Groove Agent loads its samples for this style. The yellow window is helpful here with its Loading and Ready messages.

3. Adjust the tempo of your host application to suit each style's favorite tempo range as stated in the "range" field in the yellow LCD window.
4. Click Run in the Groove Agent window. By now you should see the red LCD meters on the Groove Agent interface flash and the beat light indicate 1-2-3-4. You should also hear cool rhythms streaming from your speakers!

Groove Agent terminology

LCD window – The big, yellow window tells you, at all times, what's going on inside Groove Agent. This is your main source for information.

LCD meters – These are the cool, red level meters that start flashing when Groove Agent is playing. They indicate that sound is being output from Groove Agent, but for more detailed control you should use the level meters in your host sequencer.

Style – A certain musical style, normally linked to a unique drum and percussion kit.

Kit – A special set of drums and percussion associated with each style. Style and kit can be chosen separately.

Complexity – The level of advancement in a style. In Groove Agent the complexity levels go from left (simple) to right (advanced). Music in general benefits from variations in a song, and in Groove Agent they're easy to reach.

Fill – A live drummer usually plays a fill every eight bars or so, emphasizing the song's structure and movement. A fill may be regarded as “an improvised exclamation mark”. Going from the verse into the chorus? Time for a fill!

Half tempo feel – Typically, slowing down the kick and snare pattern to half speed, while keeping the rest of the pattern going in the other instruments, creates a dramatic effect. This is very typical live drummer behavior! Real drummers do this all the time, if you don't stop them.

Accent – Before drum machines became popular, an accent was a marked hit, typically played on the crash cymbal and kick drum. When played off beat, like e.g. on the 8th note preceding a bar line, it becomes a syncopé.

Shuffle – Sometimes referred to as “swing factor”. These terms indicate the relationship between the 8th notes (sometimes 16th notes), as these can either be perfect 8ths (“straight 8ths”) or swung (“triplet 8ths”).

Limiter – This is probably the first device a recording engineer reaches out for when recording drums. Limiting (or compression, the difference is not always easily defined) controls the overall output level and can also be used as an effect.

Ambience – Groove Agent comes with a complete set of ambience recordings for all drums and percussion instruments. The acoustic sounds have been recorded with distant microphones and the electronic sounds have been processed through various reverb and effects units.

Dry/Wet – These are terms that describe the two extremes of a sound. Either it's recorded very closely in a damped environment – dry – or we're dealing with the sound recorded from a distance or bathed in reverb – wet.

Using Groove Agent



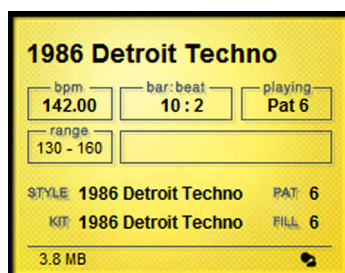
Here's the extremely compact version for the impatient amongst you:

Choose what style you want to use with the upper slider. Make sure the lower slider is somewhere in the middle third of its total range and that the tempo is inside the tempo range of the chosen style. Start your sequencer, and when you want the drums to start playing, hit Run in Groove Agent.

For really easy living, activate Auto Fill. Move the Complexity slider to the left for easier/gentler playing and to the right for a more advanced/noisy/wild drummer. Stop Groove Agent with its own Stop button or by stopping your sequencer. To record the output of Groove Agent as a MIDI part, click Edit, open the Setup section and put the MIDI Output switch to the ON position (this only works in Cubase and Nuendo).

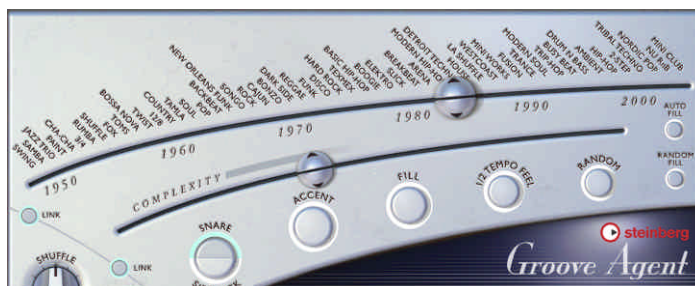
Description of some of the controls

The LCD window



This window informs you at all times what is going on inside Groove Agent

The style slider/timeline



This slider selects styles and their associated kits. The demo version only allows you to use 1975 Funk and 2001 Nordic Pop. This slider can be unlinked, so that you can play the Funk style with the Nordic Pop kit etc.

The Complexity slider

Here's where you control the drumming itself. This slider presents the chosen style at any complexity level from the easiest to the most advanced. Most usable rhythms are those in the middle region. With this slider unlinked, you're allowed to use different levels of complexity for normal play (upper half) and fills (lower half).

The keys C4-C6 on your MIDI keyboard can be used to select Complexity level.

Fill



A drum machine without a fill button? No, that won't do. This button plays one of 25 fills when hit. A fill can also be used as an intro or an ending. The keys C4-C6 on your MIDI keyboard can be used to activate a fill by playing with high velocity. The Mod wheel can also be used to trigger fills..

Half Tempo Feel



This is an unusual feature in any drum machine. It basically involves halving the speed of the kick and snare while keeping the hihat/cymbal pattern going as usual. Every drummer plays with half tempo feel some time during a gig, and you can instruct Groove Agent to do the same thing. Try this function for a dramatic effect during a critical part of

your song, i.e. the bridge.

Random



If you forget to move the complexity slider every now and then, this button can instruct Groove Agent to do it for you automatically. It chooses complexity levels randomly within close range of where the slider is currently placed.

Auto Fill



If you want a fill every time you change complexity levels, activate this button.

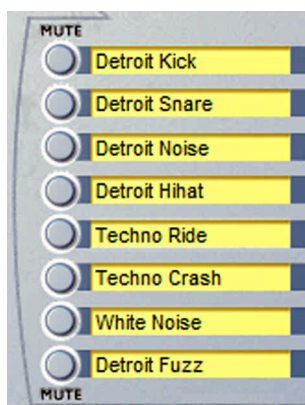
Ambience



This is the global dry/wet control. All instruments in Groove Agent have a dry (close miked) and a wet (recorded from a distance) version.

Mute, grouping and instrument selection

The sounds in Groove Agent are organized in 8 logical groups:

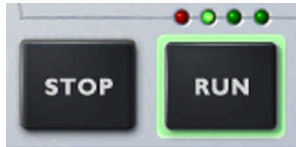


1. Kick (bass) drum
2. Snare drum
3. Toms or effects
4. Hihat
5. Ride and Chinese cymbals
6. Crash and splash cymbals
7. Percussion group 1 (usually "high and quick" instruments)
8. Percussion group 2 (usually "low and slow" instruments)

You can use the corresponding Mute button at any time to kill the sound output from any of these groups. Mute activated = no sound. Mute disabled (un-lit) = sound on.

While listening to the preset styles and their related kits, you may want to experiment with exchanging individual instruments or instrument groups. Click the sound name field to open a pop-up menu from which you can choose a different instrument. Change that tight 80s studio kick to a dull 50s jazz kick in one easy go and hear the results instantly!

Stop/Run



These buttons start and stop Groove Agent. While this instrument can be used with your host sequencer stopped, it always plays at the BPM rate (tempo) of your host program.

When your sequencer is running, Groove Agent follows the tempo and synchronizes to the beat position of the host.

You can make Groove Agent start simultaneously with your sequencer by using this method:

1. Start your sequencer.
2. Start Groove Agent.
3. Click the sequencer stop button.

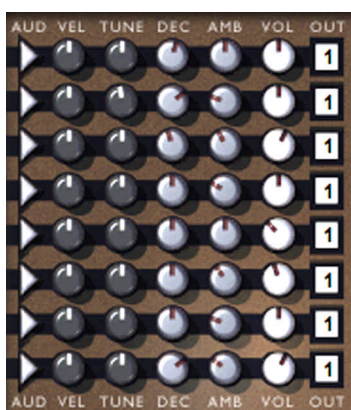
Now, the next time you start your sequencer, Groove Agent will start, too! The waiting status of the Run button is indicated by a green light.

This is good for those situations where you want the drums to play from the very start of a song or a section.

Under the hood

The black area surrounding the large LCD window is not only holding the level meters, it's also the lid under which the Edit department resides. Let's open the lid by clicking "Edit" in the lower right corner of the instrument panel.

Velocity



Each of the 8 instrument groups in Groove Agent can respond differently to incoming MIDI velocities. This knob has a volume compensating circuit connected to it.

Memory



You can use the Memory buttons to change quickly between different rhythms or setups. The active memory slot is always "open", i.e. it always remembers the last scenery.

MIDI Output

One of the coolest features in Groove Agent is the function for writing a MIDI track with drum notes. Activate this switch and set your Groove Agent MIDI track in record mode (turn off Quantize). After the MIDI part has been created, you can comfortably edit, copy, move or delete and drum data.

NOTE: We only guarantee that MIDI Output works correctly in Steinberg's Cubase and Nuendo.

Vintage mode



The "old" drum kits in Groove Agent have an authentic, vintage sound to them. This effect is quite evident in the early styles and disappears gradually at around 1975. You can remove this feature by switching this slider.

Creating a drum track in Groove Agent

When you want to add drums to your music, the scenario may be either one of these two:

1. Your sequencer program is an empty screen but you have very definite musical ideas in your head. You want to start with the drums.
2. A couple of instruments and/or vocals have already been recorded, and now you want to add a drum arrangement.

Groove Agent offers at least three different ways of creating a drum track:

- **Method 1:** Play along with your song in real-time, using your sequencer's automation to capture every move you make. Those moves can include "non-musical" events like real-time tweaking of sound parameters (edit knobs etc.).

Advantage: After recording you can edit your moves in great detail. Your own knob tweaking gets recorded as editable MIDI events. For sequencers that don't accept MIDI output from a VST instrument, this is one of a few workarounds.

Disadvantage: You cannot edit individual hits in Groove Agent's drumming this way, although you can always add individual hits by playing them live on your MIDI keyboard.

- **Method 2:** Play along with your song in real-time, using the Groove Agent panel controls to create a living and breathing drum track. Your sequencer records the MIDI notes output by Groove Agent in a MIDI part. The MIDI Output switch must be activated for this to work. We believe this is the most intuitive and creative way to create a drum track.

Advantage: "What-you-hear-is-what-you-get". The drum part will sound identical to your performance. Also, it's easy to delete, add, copy or move individual notes in the newly created drum part. You can re-direct certain notes to trigger drum sounds in another instrument, like e.g. a sampler.

Disadvantage: If you want to use a lot of dynamic controls, like the Limiter knob fading in and out or switching snare drums during a song, these events are not captured, only the MIDI notes streaming out of Groove Agent.

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- o Of course, you can mix these two methods of working, by automating Groove Agent to map out the song and then recording its output to a MIDI track for fine tuning. You can think of this as rendering Groove Agent's output to a MIDI track, like you can render the audio output of plug-ins to an audio track. Of course, you can render Groove Agent's output to an audio track, too!
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- **Method 3:** First create a series of settings using the Memory function. One setting may be perfect for the verse, the next one for the chorus and so on. Then, when you are happy with the individual memory setups, you can map out the song by switching between memories while it plays.

Advantage: Since the Memories capture EVERYTHING currently on screen, this is the only way to switch instantly between different complexity levels or even between different styles and kits! This is the method to use if it's really drastic changes you're after.

Disadvantage: Switching between pre-set scenarios may seem a bit static, since fills and real-time variations will need to be recorded or programmed in separately.

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- o The creative musician may combine any of these methods to obtain the ultimate drum track, one that includes an editable MIDI part with moving knobs and instant switching between levels, styles and kits!
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Here's a slightly different angle: Set up a suitable controller – like a five octave MIDI keyboard the way you like it. Then record a MIDI performance of pattern start, stop, select, fill, parameter adjustments and individual drum hits. This method can be used with Groove Agent's MIDI output active or not.

Using Groove Agent's MIDI output in Cubase SX

While we're not sure what every available host will do with MIDI notes being sent from a VST instrument (as far as we know, Groove Agent is the first virtual instrument with this feature), Cubase users can certainly use this method. Follow these steps.

1. Open Groove Agent in your VST instruments rack. Select Groove Agent as your input (and de-select it as an output to avoid double triggering) on the desired MIDI track. Open the Edit and Setup lids in Groove Agent and make sure that MIDI Output is set to ON. For most situations, the auto quantize function in your sequencer should be turned OFF. You're now ready to start recording your drum track.
2. Start recording in SX. Record your drums. In this mode, the settings for Limiter, Ambience and drum sounds won't be recorded, only the drum notes. When the song or section of the song is over, hit Groove Agent's Stop button and then the Stop button in Cubase.
3. In order to hear what you just recorded, make sure that the MIDI track you're using has its output set to Groove Agent. If not, it may output notes to another VSTi or external module, and you won't hear Groove Agent play back the rhythm.

Using the automation in Cubase SX

This and the following section give step by step instructions describing how you create a drum track in Cubase SX. However, similar procedures apply to most host applications, and you should consult your host's documentation if you need further help.

Working with automation is perhaps the most straightforward method. If you're not used to this approach, here's a helpful guide to get the job done in Cubase SX.

1. Open Groove Agent in your VST instruments rack. From Groove Agent's panel, activate the Write button (W). Look in the Cubase project window, and you'll notice that a new track called VST Instrument Automation, plus another track below it, have been created. For most situations, the auto quantize function in your sequencer should be turned OFF. You're now ready to start recording your drum track.
2. Start SX. When it's time for the drums to start playing, hit the Run button (with or without a fill being armed, remember?). Drag the sliders, push the buttons and turn the knobs until your drum track sounds right. When the song or section of the song is over, hit Groove Agent's Stop button and then Cubase's Stop button.
3. After recording, right click on the VST Instrument Automation track and select "Show used automation for all tracks". All the automation classes (Run/Stop, Fill, Pattern Select etc.) will have a separate track.
4. Click the Read button (R) in Groove Agent or in one of the newly created automation sub-tracks. Now you'll see the actual data in all the tracks. This data can be freely edited.
5. To prevent unintentional over-writing of data, make sure the Write button is only lit when you deliberately want to over-write the automation data.

Composing with Groove Agent's Memory slots in Cubase SX

For more drastic changes, i.e. if you want to change style, kit and sound in one go, the Memory buttons come into play. Proceed as follows.

1. Open Groove Agent in your VST instruments rack. Prepare settings for the various parts of your song in Groove Agent and save those “snapshots” in different memory locations. You may want to use one snapshot for the first verse and another snapshot for the chorus etc.
2. From Groove Agent's panel, activate the Write button (W). Look in the Cubase project window, and you'll notice that a new track called VST Instrument Automation, plus another track below it, have been created. For most situations, the auto quantize function in your sequencer should be turned OFF. You're now ready to start recording your drum track.
3. Start SX. Record your drum track by hitting Run and selecting different Memory slots when you reach various sections of your song. When the song or section of the song is over, hit Groove Agent's Stop button and then Cubase's Stop button.
4. After recording, right click on the VST Instrument Automation track and select “Show used automation for all tracks”. All the automation classes (Run/Stop, Fill, Pattern Select etc.) will be on a separate track.
5. Click the Read button (R) in Groove Agent or in one of the newly created automation sub-tracks. Now you'll see the actual data in all the tracks. This data can be freely edited.
6. To prevent unintentional over-writing of data, make sure the Write button is only lit when you deliberately want to over-write the automation data.

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- o You may prefer sending Program Change commands from your MIDI keyboard to select memory locations. If so, use normal MIDI recording, since automation will not be involved. If you play live drums on your keyboard while recording, those notes will also be recorded.
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- o In Cubase SX, the MIDI SysEx filter must be turned OFF for parameter automation to work.
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Controlling Groove Agent from a MIDI keyboard

There are situations where you want to control Groove Agent via a remote MIDI device such as a keyboard. We have prepared a scheme, so that almost everything you can do directly on screen can also be carried out remotely. Here's a complete description.

- MIDI notes B0-A3 (35-69) play the internal sounds according to a keyboard map shown on [page 18](#). These drum sounds are available at all times.
- If you control Groove Agent on MIDI channel 10, the keyboard becomes compatible with standard General MIDI (GM) mapping.
- MIDI note A#3 (70) doubles as the Accent button. It also kills drumming for as long as it's held; play a syncope and hold this key for one quarter note for very realistic behavior. Please note that this key has better timing than the Accent button on screen.
- MIDI note B3 (71) stops Groove Agent when it's running.
- Moving the modulation wheel or using CC 66 triggers a fill.
- When controlling Groove Agent on an odd number channel MIDI notes C4-C6 (72-96) serve dual purposes. Pressing any of these keys starts Groove Agent. C4 selects complexity level A, G5 selects level 15 etc. If you hit a key harder than velocity 90, you will trigger a fill.
- When controlling Groove Agent on an even number channel the white MIDI keys C4-B4 (72-83) are used to mute and un-mute the 8 individual instrument groups. The black keys above C4 (C#4-A#5 or 73-94) select memory locations 1-10 for you.

If you have an extra modulation wheel or dedicated controller/s on your keyboard, you can use these CC's to control Groove Agent:

MIDI CC Destination

CC	Destination
2 and 65	Snare/Sidestick selection
3 and 64	Half Tempo Feel
7	Overall volume
76	Host BPM (60 + value) if your host does not support tempo sync
77	Humanize
78	Shuffle
83	Vintage on/off
91	Ambience
Prg chng	Memory select 1-10

Please note that the controllers mentioned here may also be handy when editing Groove Agent drum parts in your sequencer.

You can get one level deeper in detail when controlling Groove Agent via MIDI. These commands double as edit controls for each of the 8 output groups on MIDI channel 1-8:

MIDI CC Destination

CC	Destination
69	Mute
70	Vel Offset
71	Tune
72	Ambience
73	Volume
74	Output
75	Decay

Contact, Internet

For more info, latest news, and to get into contact with the Groove Agent staff, please visit our website: <http://ga.clubcubase.net>